Electronic TUBE

6AL7-GT
Description and Rating
ELECTRON-RAY INDICATOR

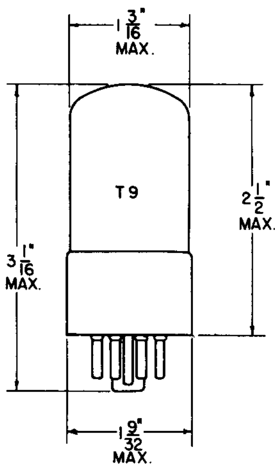
GENERAL DESCRIPTION

Principal Application: The 6AL7-GT is an electron-ray indicator designed especially for use in AM-FM receivers. Through its use, precise tuning of either FM or AM signals is easily accomplished without the use of additional tubes or circuit components.

Cathode:	Coated Unipotential
Heater Voltage (A-C or D-C)	6.3 Volts
Heater Current	0.15 Ampere
Envelope:	T-9, Glass

Base: B8-6, Intermediate Shell Octal 8-Pin or B8-46, Short Intermediate Shell Octal 8-Pin
Mounting Position: Any

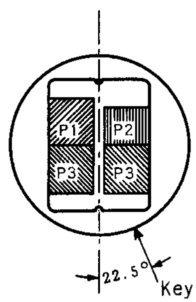
PHYSICAL DIMENSIONS



RTMA 9-7 or 9-39

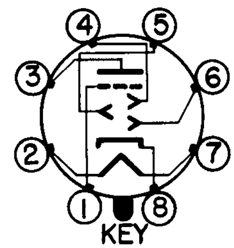
TERMINAL CONNECTIONS

Pin 1 - Grid
Pin 2 - Heater
Pin 3 - Target
Pin 4 - Deflection Electrode Number 2
Pin 5 - Deflection Electrode Number 3
Pin 6 - Deflection Electrode Number 1
Pin 7 - Heater
Pin 8 - Cathode



Pattern areas P_1, P_2, and P_3 are produced and controlled by deflection electrodes number 1, 2, and 3 respectively.

BASING DIAGRAM



RTMA 8CH
BOTTOM VIEW

MAXIMUM RATINGS

DESIGN CENTER VALUES:

Target Voltage (Maximum)	365	Volts
Target Voltage (Minimum)	220	Volts
Heater-Cathode Voltage	90	Volts

CHARACTERISTICS AND TYPICAL OPERATION

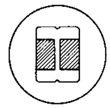
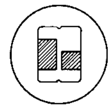
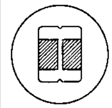
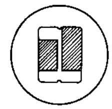
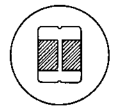
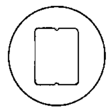
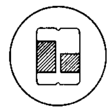
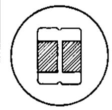
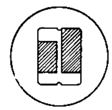
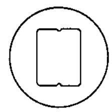
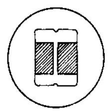
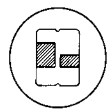
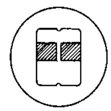
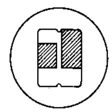
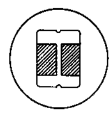
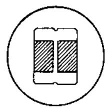
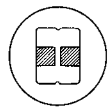
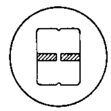
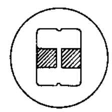
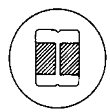
INDICATOR SERVICE

Target Voltage	315	Volts
Deflection Electrode Number 1 Voltage	0	Volts
Deflection Electrode Number 2 Voltage	0	Volts
Deflection Electrode Number 3 Voltage	0	Volts
Grid Voltage *	0	Volts
Cathode Bias Resistor	3300	Ohms
Deflection Sensitivity (Approx) for First Millimeter Deflection #	1.0	mm/Volt
Grid Voltage (Approx) for Fluorescence Cutoff	-7.0	Volts

* *The grid should be connected to the cathode when not used for fluorescence control.*

\# *For deflection electrodes number 1 and 2*

PATTERN SEQUENCE DURING TUNING

CONTROL VOLTAGE SOURCE	SIGNAL	CIRCUIT (SEE FIGURE)	OFF CHANNEL (-)	ON CHANNEL OFF TUNE (-)	ON TUNE	ON CHANNEL OFF TUNE (+)	OFF CHANNEL (+)
DISCRIMINATOR	FM	1 AND 2					
DISCRIMINATOR AND SQUELCH	FM	3					
DISCRIMINATOR AND LIMITER	FM	4					
AVC	AM	5					

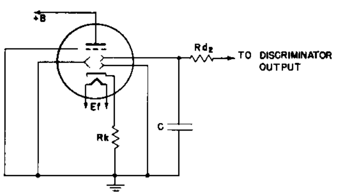


FIGURE 1

Ef = 6.3 VOLTS
+B = 250-330 VOLTS D-C
Rk = 3300 OHMS
Rd2 = 1.0 MEGOHM
C = 0.05 MICROFARAD

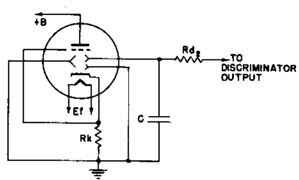


FIGURE 2

Ef = 6.3 VOLTS
+B = 250-330 VOLTS D-C
Rk = 3300 OHMS
Rd2 = 1.0 MEGOHM
C = 0.05 MICROFARAD

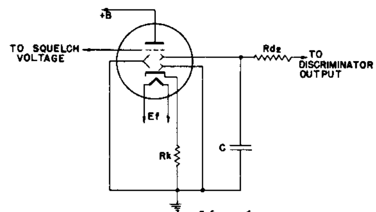


FIGURE 3

Ef = 6.3 VOLTS
+B = 250-330 VOLTS D-C
Rk = 3300 OHMS
Rd2 = 1.0 MEGOHM
C = 0.05 MICROFARAD
SQUELCH VOLTAGE:
0 VOLTS - "ON TUNE"
-6 VOLTS (APPROX) - "OFF CHANNEL"

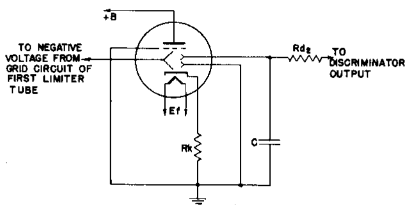


FIGURE 4

Ef = 6.3 VOLTS
+B = 250-330 VOLTS D-C
Rk = 3300 OHMS
Rd2 = 1.0 MEGOHM
C = 0.05 MICROFARAD

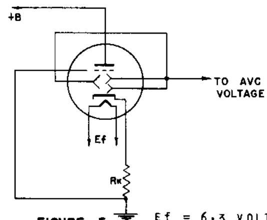


FIGURE 5

Ef = 6.3 VOLTS
+B = 250-330 VOLTS D-C
Rk = 3300 OHMS

TUBE DEPARTMENT

GENERAL ELECTRIC

Schenectady 5, N. Y.